

09/600392

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SEQUENCE LISTING

<110> PHARMACIA & UPJOHN COMPANY
Quinn, Cheryl L.
Ford, Charles W.

<120> AN AUTOREGULATORY SYSTEM FOR VALIDATING MICROBIAL GENES
AS POSSIBLE ANTIMICROBIAL TARGETS USING A
TETRACYCLINE-CONTROLLABLE ELEMENT

<130> 6137.P US

<140> Unassigned
<141> 2000-07-13

<150> 60/071,640
<151> 1998-01-16

<160> 45

<170> PatentIn Ver. 2.1

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<211> 31
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Oligonucleotides

<400> 1

acgcacgagc tcgggttcag atggcattgt c

31

<210> 2
<211> 26
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Oligonucleotides

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gggttacccc ctctgcaaat gtcaaa

26

<210> 3
<211> 30
<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic Oligonucleotides

<400> 3
acgcacgagc tcagatcttc gcttgtgcgg 30

<210> 4
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Oligonucleotides

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gggttacccg ctgaagagat agcgattg 28

<210> 5
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Oligonucleotides

<400> 5
acgcacgagc tctttcagaa atgttcggtt atg 33

<210> 6
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<223> Description of Artificial Sequence: Synthetic Oligonucleotides

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<210> 7
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Oligonucleotides

<400> 7
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<210> 8
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<220>
<223> Description of Artificial Sequence: Synthetic Oligonucleotides

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gtcaaacgtga gcgttagtgac g 21

<210> 9
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<220>
<223> Description of Artificial Sequence: Synthetic Oligonucleotides

<400> 9
cgaagttga tagatgatac attctattaa acttccttt tttatgcct gaaa 54

<210> 10
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<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotides

<400> 10
aaacaatgat tatctaccaa attagtgcaag atagataacc attgtttatc

50

<210> 11
<211> 52
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<223> Description of Artificial Sequence: Synthetic
Oligonucleotides

<400> 11
agcataaaaa aaggaagttt aatagaatgt atcatctatc aaacttcggt ac

52

<210> 12
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<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotides

<400> 12
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<210> 13
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<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotides

<400> 13
cgggatccaa tggaggaaaa tcacatg

27

<210> 14

<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Oligonucleotides

<400> 14
tccccccggg taggacacaa tatccacttg tag 33

<210> 15
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Oligonucleotides

<400> 15
gactagttt gacaaataact ctatcaatga tagagtgtc 39

<210> 16
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<212> DNA
<213> Artificial Sequence

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<400> 16
taatgtatgtc tagatttagat aaaagt 26

<210> 17
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Oligonucleotides

<400> 17

cgggatcctt aagaccact ttcacattt

29

<210> 18
<211> 62
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotides

<400> 18
ctagacatca ttaattcctc cttttgttg acactctatc attgatagag ttatttgtca 60
aa 62

<210> 19
<211> 60
<212> DNA
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<223> Description of Artificial Sequence: Synthetic
Oligonucleotides

<400> 19
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<210> 20
<211> 46
<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
Oligonucleotides

<400> 20
ctagttttt atttgcgag ttcatgaaaa actaaaaaaaa attgac 46

<210> 21
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotides

<400> 21
tttttttag tttttcatga actcgacaaa taaaaaaa

37

<210> 22
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotides

<400> 22
actctatcat tgatagagta taattaaaat aaaaaagctg ca

42

<210> 23
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotides

<400> 23
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40

<210> 24
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotides

<400> 24
gcttttttat tttaattata ctctatcaat gatagagtgt caa

43

<210> 25

<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Oligonucleotides

<400> 25
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<210> 26
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<220>
<223> Description of Artificial Sequence: Synthetic Oligonucleotides

<400> 26
gtttaaactt aaaattcttc attacactc 29

<210> 27
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<220>
<223> Description of Artificial Sequence: Synthetic Oligonucleotides

<400> 27
ggaattttaa gtttaaactg caaatacgga aatgaaatta at 42

<210> 28
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Oligonucleotides

<400> 28

acatacgcac gcgaattcaa gtattgatat ggtaaatatg g 41

<210> 29
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Oligonucleotides

<400> 29
ggaattttaa gtttaaacga ggagtaggtt gaatggta 39

<210> 30
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Oligonucleotides

<400> 30
acatacgcac gcgaattcct tgcgctaaaa ttatac 36

<210> 31
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Oligonucleotides

<400> 31
ggaattttaa gtttaaacga ataggagaga ttttataatg gc 42

<210> 32
<211> 39
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Oligonucleotides

<400> 32

acatacgcac gcgaattcac gagtttggg cattggacc

39

<210> 33

<211> 114

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA fragment

<400> 33

ggtaccgaag tttgatagat gatacattct attaaacttc cttttttat gctctgaaaa 60
aacaatgatt atctaccta ttagtgaga tagataacca ttgttatcc cggg 114

<210> 34

<211> 2076

<212> DNA

<213> Escherichia coli

<400> 34

cccggttagg acacaatatac cacttgttagt ttataataac gatctcctcc tttccacttt 60
aattcaaatac tatattaaag aatatttcat cttatttaat aagaaaccat atttatataa 120
caacataaaa cgcactaagt tattttattt aacatataatc ttactttatc tatccgacta 180
tttagacgac gggctggca aacagggtcg ccagtgtaa cctgatatcc ttttagctct 240
gctaaacaaa cactaagccc atttgtaaaa aaagttaaat cattgcgata atcttgaata 300
catcgagcag gaatttctcc aataataatg acctcattat ttttcagttt agtattttacg 360
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taaactttaa aactaagata tgctctaac aattctgttc cagctttct aaaggcttgc 480
tccagtacaa taggatgtttt catccgaaaa tctgctggag tactaacagg gctatagtt 540
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gaaaccgagc tctcatactg cattccactt cccaaacggaa gcggtgatatac agataaaacca 720
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tcttgcaaca gtgcactaat cacttccatt tgtactttcc ctaagaaaga aagtataatt 900
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tataataagc tttctgttaa ggtagtttt cctgcatcaa catgagctaa aactccaata 2040
ttaataattt tcatgtgatt ttccctccatt ggatcc 2076

<210> 35
<211> 615
<212> DNA
<213> Escherichia coli

<400> 35
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aaggccgaat aagaaggctg gctctgcacc ttgggtatca aataattcga tagcttgctg 120
taataatggc ggcatactat cagtagtagg tggccctt tcttcttag cgacttgatg 180
ctcttgatct tccaaatacgc aacctaaagt aaaatgcccc acagcgctga gtgcataataa 240
tgcattctct agaaaaaacct tggccataaaaaggctaa ttgatttgc agagtttcat 300
actgttttc tgttaggccgt gtactttgc tccatcgca tgacttagta aagcacatct 360
aaaactttta gcgttattac gtaaaaaatc ttgcagctt tcccctctaaaggcaaaa 420
gtgagttatgg tgcctatcta acatctcaat ggcttggcg tcgagcaag cccgcttatt 480
tttacatgc caatacaatg taggctgctc tacaccttagc ttctggcgaa gtttacgggt 540
tgttaaacct tcgattccga cctcatataa cagctcaat gcgtgttaa tcactttact 600
tttatctaataatctaga 615

<210> 36
<211> 680
<212> DNA
<213> Escherichia coli

<400> 36
ggatccttaa gacccacttt cacatttaag ttgttttct aatccgcata tgatcaattc 60
aaggccgaat aagaaggctg gctctgcacc ttgggtatca aataattcga tagcttgctg 120
taataatggc ggcatactat cagtagtagg tggccctt tcttcttag cgacttgatg 180
ctcttgatct tccaaatacgc aacctaaagt aaaatgcccc acagcgctga gtgcataataa 240
tgcattctct agaaaaaacct tggccataaaaaggctaa ttgatttgc agagtttcat 300
actgttttc tgttaggccgt gtactttgc tccatcgca tgacttagta aagcacatct 360
aaaactttta gcgttattac gtaaaaaatc ttgcagctt tcccctctaaaggcaaaa 420

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gtgagtatgg tgccttatcta acatctcaat ggctaaggcg tcgagcaaag cccgcttatt 480  
ttttacatgc caataacaatg taggctgctc tacaccttagc ttctggcga gtttacgggt 540  
tgttaaacct tcgattccga cctcattaaag cagctctaatt gcgcgtttaa tcactttact 600  
tttatctaatt ctagacatca ttaattccta atttttgttg acgacactct atcattgata 660  
gagttattttg tcaaactagt 680
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<210> 37
<211> 152
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotides

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<400> 37
tctagacatc attaattcct ccttttggtt gacactctat cattgataga gttatttgtc 60
aaactagttt tttatattgtc gagttcatga aaaactaaaa aaaattgaca ctctatcatt 120
gatagagtat aattaaaata aaaaagctgc ag 152
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<210> 38
<211> 876
<212> DNA
<213> *Staphylococcus aureus*

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<400> 38
ctgcagcgga gggtttattt tgaaaaagtt aatattttta attgtaattg cttagtttt 60
aagtgcatgt aattcaaaca gttcacatgc caaagaggtt aatgatttag aaaaaaaaaata 120
taatgctcat atgggtgtt atgctttaga tactaaaagt ggtaaggaag taaaattaa 180
ttcagataag agatttgcct atgcttcaac ttcaaaagcg ataaatagtg ctatTTGTT 240
agaacaagta ccttataata agttaaataa aaaagtacat attaacaag atgatatagt 300
tgcttattct cctatTTAG aaaaatatga gggaaagata tcactttaaa agcacttatt 360
gaggcttcaa tgacatatac tgataataca gcaaacaata aaattataaa agaaatcggt 420
ggaatcaaaa aagttaaaca acgtctaaaa gaacttaggag ataaagtaac aaatccagtt 480
agatatgaga tagaattaaa ttactattca ccaaagagca aaaaagatac ttcaacacct 540
gctgcttcg gtaagacttt aaataaaactt atcgcaaatg gaaaattaag caaagaaaaac 600
aaaaaaaaattct tacttgattt aatgttaaat aataaaaagcg gagatacttt aattaaagac 660
ggtgttccaa aagactataa ggttgctgat aaaagtggtc aagcaataac atatgcttct 720
agaaatgatg ttgctttgt ttatcctaag ggccaatctg aacctattgt tttagtcatt 780
tttacgaata aagacaataa aagtgataag ccaaatgata agttgataag tgaaaccGCC 840
aagagtgtaa tqaaggaatt ttaagaattc qcatqc 876
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<210> 39
<211> 872
<212> DNA

<213> *Staphylococcus aureus*

<400> 39

ctgcagcgg a gggtttattt taaaaaagtt aatattttta attgttaattg cttagtttt 60
aagtgcata aattcaaaca gttcacatgc caaagagttt aatgatttag aaaaaaaaaata 120
taatgctcat atgggtgttt atgcattttaga tactaaaagt ggtaaggaag taaaattaa 180
ttcagataag agatttgcct atgctcaac ttcaaaaagcg ataaatagtg ctatTTgtt 240
agaacaagta ccttataata agttaaataa aaaagtacat attaacaag atgatatagt 300
tgcttattct cctatTTtag aaaaatatga ggaaaagata tcactttaaa agcacttatt 360
gaggcttcaa tgacatataag tgataataca gcaaaacaata aaattataaa agaaatcggt 420
ggaatcaaaa aagttaaaca acgtctaaaa gaactaggag ataaagtaac aaatccagtt 480
agatatgaga tagaattttt ttactattca ccaaagagca aaaaagatac ttcaacacct 540
gctgcttcg gtaagacttt aaataaaactt atcgcaaatg gaaaattaag caaagaaaac 600
aaaaaattct tacttgattt aatgttaaat aataaaaagcg gagatacttt aattaaagac 660
ggtgtccaa aagactataa ggttgctgat aaaagtggtc aagaataaac atatgcttct 720
agaaaatgatg ttgctttgt ttatccataag ggccaaatctg aaccatttgc tttagtcatt 780
tttacgaata aagacaataa aagtgataag ccaaatacgata agttgataag tgaaaccggcc 840
aagagtgtaa tgaaggaatt ttaagttaa ac 872

<210> 40

<211> 330

<212> DNA

<213> *Staphylococcus aureus*

<400> 40

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cagcttttc agaaaatttcg gttatgcAAC atcattacgt tcaaacactc aaggTCGCGG 60  
tacttacact atgtacttcg atcaactatgc tgaagttcca aaatcaatcg ctgaagatat 120  
tatcaagaaa aataaaaggta aataatataa cttgttttga cttagctagcc taggttaaaa 180  
tacaaggta gcttaaatgt aagctatcat ctttatagtt tgatTTTtg gggtgaatgc 240  
attataaaaag aattgtaaaa ttcttttgc atcgctataa ataatttctc atgatggta 300  
gaaactatca tgagagataa atttggtaCC 330
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<210> 41

<211> 385

<212> DNA

<213> *Staphylococcus aureus*

<400> 41

gtttaaacga ataggagaga ttttataatg gcaaaagaaa aattcgatcg ttctaaagaa 60
catgccaatt cggtacttcg gtcacgttga ccatggtaaa acaacattaa cagcaatcgc 120
tactgtatta gcaaaaaatg gtgactcagt tgcacaatca tatgacatga ttgacaacgc 180
tccagaagaa aaagaacgtg gtatcacaat caatacttct cacattgagt accaaactga 240
caaacgtcac tacgctcacg ttgactgccc aggacacgct gactacgtt aaaaacatgat 300
caactggct gctcaaatgg acggcgttat cttagtagta tctgctgctg acggtccaaat 360
gccacaaact cgtgaattcg catgc 385

<210> 42
<211> 379
<212> DNA
<213> Staphylococcus aureus

<400> 42
gagctcggtt gcagatggca ttgtcattgg tagcgaaatc gttaagcgat ttaaatctaa 60
cacgcgttag gaaatcatta aatatttaca atctatccaa caaacattga ataattaagt 120
ttacttgatt taaaaaaaatt aggcaatac tgttgaaaa agtggaaaac ggtgaattat 180
aaaattgaat acaatttcaa aaaaagtaat atgagcaaac ccaaacgttc atattacttt 240
ttttgaaatt gtattcaaaa atctaaatat tactataaaa gtatacgcaa ttaaagcggtt 300
tatgttttag ttttaacatt aactattgta tacttattta gattagattt attatttttg 360
acatttgcag aggggtacc 379

<210> 43
<211> 420
<212> DNA
<213> Staphylococcus aureus

<400> 43
gtttaaactg caaatacgga aatgaaatatta attaacgaga gacaaatagg agtaatgata 60
atgaagttt caaatttac acgtaaagag ttgggtgcct ttacagatag catgccatac 120
agtcatttca cgcaaaactgt tggccactat gagttaaagc ttgctgaagg ttatgaaaca 180
cattttagtgg gaataaaaaaa caataataac gaggtcattt cagttgcctt acttactgct 240
gtacctgtta tgaaagtgtt caagtatttt tattcaaatc gcggtccagt gattgattat 300
gaaaatcaag aactcgtaca cttttcttt aatgaattat caaaatatgt taaaaaacat 360
cgttgtctat acctacatat cgatccatat ttaccatatc aataactgaa ttcgcattgcg 420

<210> 44
<211> 290
<212> DNA
<213> Staphylococcus aureus

<400> 44
gagctcggtt tcaatattaa ctgaaaaaga attagattaa atattaattt ggaaaactgg 60
aacaaccaaa aagttatatg accgcgtagg tcttaatgaa gagacgctaa gtattttaga 120
tactgaaatc actaaaaaaa caataacctgt aagacctggg agaaatgttgcgttaattat 180
tgaggtcgct gcaatgaact atcgattaaa tatcatgggc attaacactg ccgaagaattt 240
tagtgaaga ttaaatgaag aaattatcaa gaacagtcat aagaggtacc 290

<210> 45
<211> 434
<212> DNA
<213> Staphylococcus aureus

<400> 45
gtttaaacgg aggagtaggt tgaatggta ttgtatttaa ctatatacat cctgtggcat 60
ttaacttagg accactgagt gtacgatggt atgaaattat cattgctgtc ggaatattac 120
ttggttactt tggcacaac cggtcactag taaaaggcagg attacataaa gatactttag 180
tagatattat ttttatagt gcactattt gatttatcgcc ggcacgaatc tattttgtga 240
ttttccaatg gcccattttac gcgaaaatc caagtggaaat tattaaataa tggcatggtg 300
gaatagcaat acatggtgtt ttaatagggt gctttattgc tggtgttatt gtatgtaaag 360
aaaaattta aaccatttc aaattggtga tatcgttcg ccaagtataa ttttagcgca 420
aggaattcgc atgc 434